



FEDERAL SECURITY AGENCY
PUBLIC HEALTH SERVICE

IN REPLYING, ADDRESS THE

November 30, 1949

Communicable Disease Center
Enteric Bacteriology Laboratory
Chamblee, Georgia

Dr. Joshua Lederberg
Assistant Professor of Genetics
The University of Wisconsin
Madison 6, Wisconsin

Dear Doctor Lederberg:

I must apologize for the long delay in reporting the cultures of Coli 1 mentioned in your letter of October 25. This delay is accounted for by the fact that the cultures which you sent were somewhat rough and were very poorly motile. Their study was very difficult as is often the case with cultures exposed to the agents mentioned in your letter. Our difficulties were complicated by the fact we had no O serum for this type.

The results which we have obtained in the study of the cultures are enclosed on a form. Inasmuch as both cultures contain Vi antigen and are agglutinated by 1,5 serum, I presume that both are Coli 1. It is doubtful whether their O antigens would be recognizable even if we had O serum.

I have never worked intensively with the Coli strains which Kauffmann included in the genus Salmonella some years ago. At different times, we have used Coli 1 for the production of Vi serum and for the Vi antigen. Therefore, I cannot answer the questions regarding form variation contained in your letter.

The stock culture of Coli 1 is being sent you as requested.

Your remarks concerning the presence of phages in Salmonella cultures interest me very much and I would like to talk to you about it when the opportunity presents itself. We are interested in the isolation of large numbers of phages for various Salmonella types with the idea that they may be used in the differentiation of cultures of a given type.

For the Officer in Charge, Bacteriology Branch

Very sincerely yours,

Philip R. Edwards, Ph. D.
Bacteriologist-in-Charge
Enteric Bacteriology Laboratory

Encl.

PRE:mg

FEDERAL SECURITY AGENCY
Public Health Service
Communicable Disease Center
Enteric Bacteriology Laboratory
Chamblee, Georgia

Report of Laboratory Investigation

Date 11-30-49

To:

Dr. Joshua Lederberg
Assistant Professor of Genetics
The University of Wisconsin
Madison 6, Wisconsin

Date Rec'd 10-27-49

Sender's No. _____

Our No. 2688-49 - 2689-49

Description of Specimen Two cultures for identification

Results:

See reverse side.

Remarks:

Approved: W.F.
Dr. M. Frobisher, Jr.
Bacteriologist-in-Charge
Bacteriology Branch

P.R. Edwards
Philip R. Edwards, Ph. D.
Bacteriologist-in-Charge
Enteric Bacteriology Laboratory

RESULTS:

| | <u>H₂S</u> | <u>Indol</u> | <u>Tart</u> | <u>Citrate</u> | <u>Urea</u> | <u>Dul</u> | <u>Suc</u> | <u>Lac</u> | <u>Gluc</u> | <u>Mann</u> | <u>Malt</u> | <u>Inos</u> | <u>Raff</u> | <u>Adon</u> | <u>Sal</u> | <u>Vi</u> | <u>1.5</u> |
|--------------------------------|-----------------------|--------------|-------------|----------------|-------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-----------|--------------------|
| S. Coli - lac + Lederberg | 4+ | + 3 da | + | - | - | - | - | AG | AG | AG | AG | - | - | - | - | + | + |
| S. Coli - lac neg Lederberg | 4+ | - 3 da | + | + | - | AG | - | - | AG | AG | AG | - | - | - | - | + | + poorly motile |
| E. Coli #134 | 4+ | -+ 3 da | + | - | - | - | - | - | AG | AG | AG | - | - | - | - | + | + |